

the wood pewee (*Myiochanes virens*) was observed to destroy large numbers of *Crambus laqueatellus* at Haw Patch, Ind., and C. H. Fernald observed barn swallows feeding on different species of *Crambus* in Maine. Meadowlarks frequent weedy fields which harbor the larvæ of *Crambus*, and as these birds are known to feed on various species of cutworms, they doubtless feed also on the larvæ of the tobacco *Crambus*."

The third insect pest, to whose bird enemies the Bureau of Entomology draws our attention is the rose aphid (*Macrosiphum rosæ*). Mr. H. M. Russell, the author of a bulletin on this plant louse states¹ that he has observed the California House Finch and the White-crowned Sparrow feeding on the aphides. The latter bird almost cleared a rose bush of the lice in ten minutes, during which time many hundreds must have been eaten.

A Canadian publication may be briefly mentioned here for the sake of correcting an erroneous statement relating to birds as enemies of the chinch bug. The author, Mr. H. F. Hudson, states:² "Unlike most of our other insect pests, which, for a time, seem to gain the mastery of a tract of country, the chinch bug enjoys almost practical immunity from attack by birds."

On the contrary the chinch bug has no such immunity; we cannot expect birds to specialize on a single species, but there is no doubt that chinch bugs are taken in their proper proportion to the insect world at large. The following 17 species of birds are known to prey upon the chinch bug: Bobwhite, Prairie Chicken, Redwinged Blackbird, Catbird, Mocking-bird, Brown Thrasher, Meadowlark, House Wren, Tree Swallow, Horned Lark, Arkansas Kingbird, Traill's Flycatcher, Seaside Sparrow, Savannah Sparrow, Song Sparrow, Tree Sparrow, and Barn Swallow.—W. L. M.

Hewitt on 'The protection of birds in and around Ottawa.'³—

It is a significant proof of the value of bird protection for the Entomologist of a great country like the Dominion of Canada to lend active assistance to the forwarding of the plan described in the present paper. At the suggestion of the author, and with the coöperation of the Ottawa Field Naturalist's Club, two of the larger public reservations near Ottawa have been made bird sanctuaries. They will be abundantly supplied with nest boxes and it is hoped that a great increase in bird population will result.

Dr. Hewitt has had previous experience along this line, having successfully used nest boxes to attract birds to an area where their aid was needed in combating the larch sawfly. This was near Manchester, England. "In the first year (1908), 60 boxes were distributed and 31 per cent were occupied. The number of boxes was increased yearly until in 1911 there

¹ Bull. 90, U. S. Dept. of Agriculture, May, 1914, p. 10.

² Ent. Circular No. 3, Div. of Ent., Canada Dept. of Agriculture, 1914, p. 12.

³ Hewitt, C. G. The Ottawa Naturalist, Vol. XXVII, No. 12, March, 1914, pp. 161-171, Pls. 21-23.

were 347 boxes of which 66 per cent were occupied. . . . In 1913, 75 per cent of the boxes were occupied."

One cannot believe that our birds are so different from those of Europe that similar success in increasing birds may not be had in this country. Let us at least make the attempt. Dr. Hewitt's paper gives directions for making a cheap form of nest box such as was used in England, and contains a good general statement of the value of birds. The entomologists of England and her colonies are unanimous in giving high rank to birds as enemies of insects.— W. L. M.

Menegaux on Birds as Enemies of Mice.¹ — This is a collation of the results published by Dr. A. K. Fisher, in the United States, Dr. George Rorig in Germany, MM. M. de la Faye and G. de Dumast in France, and by a few other authors. The economic tendencies of various rodents are discussed, as well as methods of destroying the animals. It is asserted that the chief cause of the steady increase of noxious rodents is the destruction of their bird, mammal and serpent enemies.

Details are given of the food of numerous species of birds of prey, especially of those common to the old and new worlds. The conclusion is that birds are an underestimated but indispensable factor in the control of these and other injurious animals.— W. L. M.

A note on 'The Effect of Extent of Distribution on Speciation.'² — A paper by Asa C. Chandler, with the title quoted is devoted to an exposition of certain conceptions apparently brought forward as new. Nothing could be more obvious, however than the main thesis of the paper, which is, that wide-ranging orders, families and genera, as a rule contain proportionally more families, genera and species respectively than similar groups of more restricted distribution. I do not wish to comment further on this over-elaboration of a fundamental concept, but desire merely to point out a prior statement and argument of the case. Professor Dean C. Worcester in his "Notes on the distribution of Philippine birds,"³ says: "that in the Philippines the larger the island and the greater the diversity of its surface, the larger the percentage of genera represented by more than one species, and the larger the average number of species into which they are differentiated." (p. 611.) Earlier versions of the idea undoubtedly can be found.— W. L. M.

Henshaw's 'Birds of Town and Country.'⁴ — In 1913 the Biological Survey of the U. S. Department of Agriculture under the direction of the

¹ Menegaux, A., *Les Oiseaux ennemis naturels des souris et des campagnols*. Rev. Sci. 52, No. 19, May 9, 1914, pp. 586-593.

² *Am. Nat.*, Vol. 48, March, 1914, p. 129-160.

³ *Proc. U. S. Nat. Mus.*, Vol. 20, pp. 567-625, 1898.

⁴ *Birds of Town and Country*. By Henry W. Henshaw. *National Geographic Magazine*. May, 1914. pp. 494-531.